Supplementary Information: Armed-conflict risks enhanced by climate-related disasters in ethnically fractionalized countries

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Table S1: Overview on the classification of extreme events based on the Munich Re NatCatSERVICE data base.

Event Classification	Event Types
Meteorological events	Blizzard/Snowstorm, Hailstorm, Tornado, Tropical Cyclone, Winter storm
Hydrological events	Avalanche, Flash Flood, General Flood, Landslide, Storm surge
Climatological events	Cold wave/frost, Drought, Heat wave, Wildfire

Table S2: Total global natural disaster occurrences for the different climate related event types and damage thresholds applied.

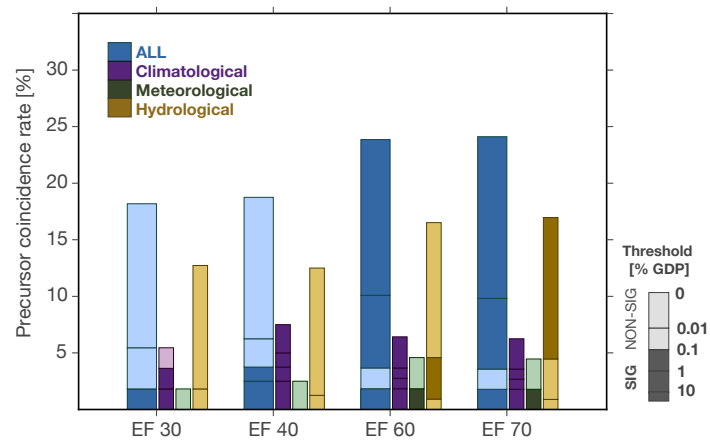| Damage Tresh-old [% GDP]	All events	Meteorological events	Hydrological events	Climatological events
0	17906	8899	6268	2739
0.01	2467	857	1020	590
0.1	908	228	353	327
1.0	241	37	74	130
10.0	37	9	6	22

Figure S1: Same as Fig. 3, but for different group sizes for the ethnic fractionalization index (EF) (1). Results are shown for the 30, 40, 60 and 70 countries with the highest EF.
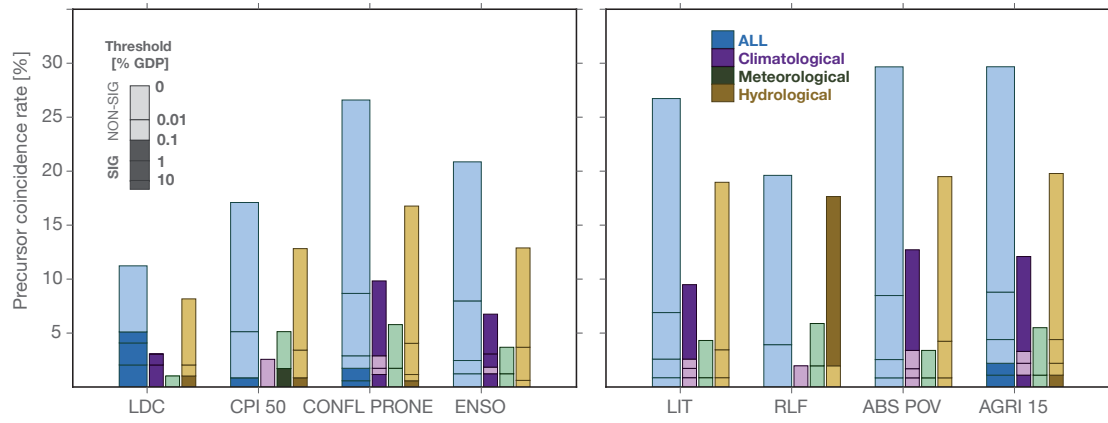
Figure S2: Same as Fig. 3, but resolved for alternative country groupings as given in Tab. S3
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Table S3: Overview on country classifications and data sources.

Group Name	Description	Data Source
EF	The 50 countries with the highest ethnic fractionalization based on Alesina et al. (2003). Robustness is tested for different country group sizes	Alesina et al. (2003) (1)
GINI	The 50 countries with the highest inequality based on the GINI coefficient	World Bank 2014 (2)
CONFL	Classification based on the number of conflicts over the time period 1980-2010. Countries with more than one conflict are included.	UCDP/PRIO 2011 (3)
CONFL PRONE	Classification based on the number of conflicts over the time period 1980-2010 . Countries with more than two conflicts are included.	UCDP/PRIO 2011 (3)
LDC	Least Developed Countries, group of countries with lowest indicators of socioeconomic development	United Nations (4)
CPI 50	Classification based on the Corruption Perception Index (CPI) by Transparency International. Includes all countries with a CPI below 50 (on a scale between 0 and 100)	Transparency International CPI 2013 (5)
ENSO	Classification based on ENSO effects on the countries climate.	Hsiang et al. (2011) (6)
LIT	The 50 countries with the lowest literacy rate averaged over the 1980-2011 period.	World Bank 2014 (2)
RLF	The 50 countries with the highest religious fractionalisation based on Alesina et al. (2003).	Alesina et al. (2003) (1)
ABS POV	Countries with a share of more than 25 % of their population living in absolute poverty averaged over the 1980-2011 period.	World Bank 2014 (2)
AGRI 15	Classification based on the importance of agriculture for the countries GDP (in 2012). Countries with a share of agriculture in GDP exceeding 15 % are included. Due to large data gaps, this classification is not comprehensive	World Bank 2014 (2)

Table S4: Total conflict outbreaks for the country groupings analyzed.

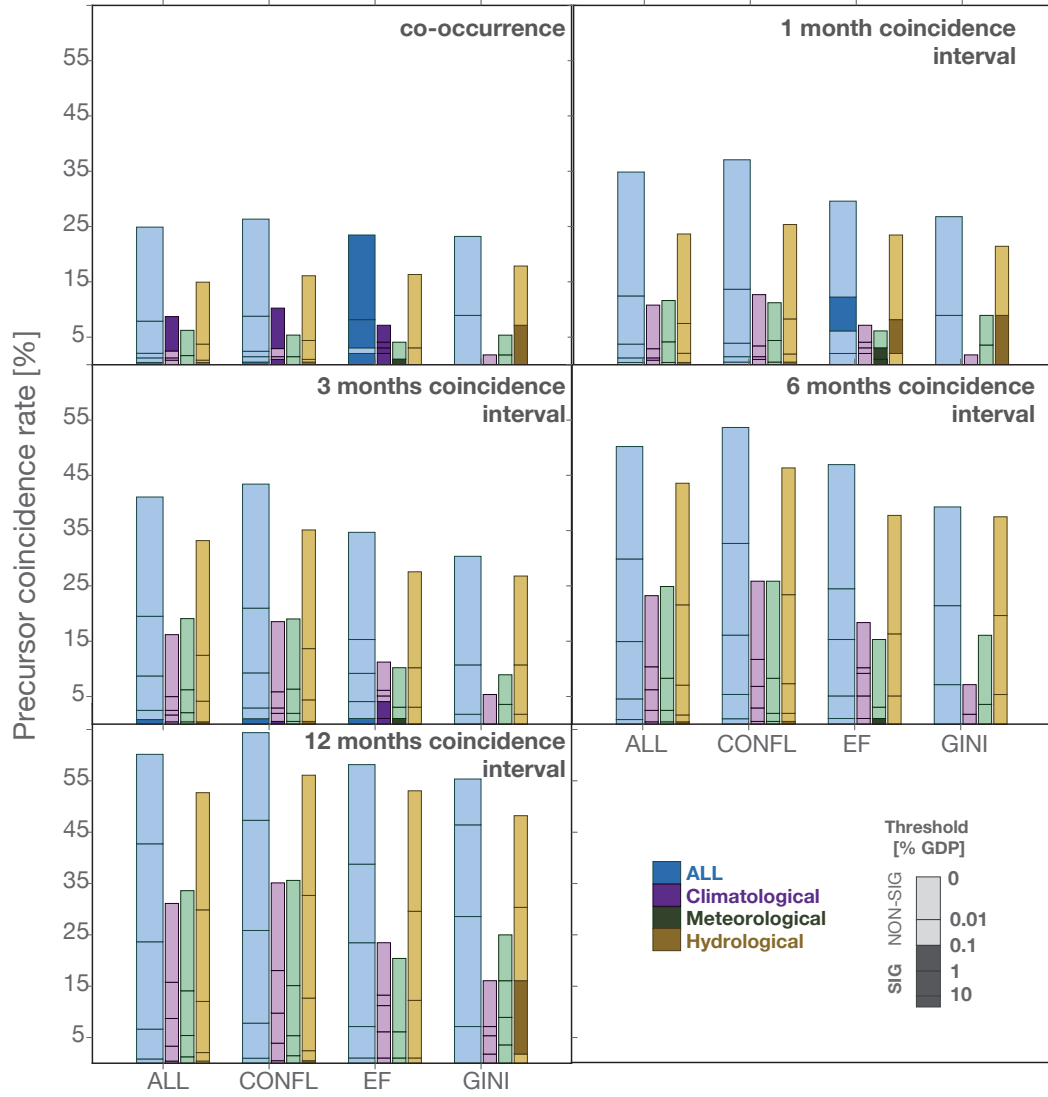| Group Name	Number of Conflict Outbreaks	Group Name	Number of Conflict Outbreaks
All	241	LDC	98
EF 30	55	CPI 50	117
EF 40	80	ENSO	163
EF 50	98	LIT	116
EF 60	109	RLF	51
EF 70	112	ABS POV	118
GINI	56	AGRI 15	91
CONFL	205	CONFL PRONE	173

Figure S3: Same as Fig. 3, but resolved for longer coincidence intervals ΔT. Note that coincidence intervals are cummulative, which means that a 6 month coincidence interval counts the coincidences with climate related natural disasters within 6 month before a conflict outbreak.

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References

[1] Alesina A, Devleeschauwer A, Easterly W, Kurlat S, Wacziarg R (2003) Fractionalization. *Journal of Economic Growth* 8:155–194.

[2] World Bank (2015) Database. (http://data.worldbank.org/indicator/) Accessed: 2015-02-11.

[3] UCDP/PRIO (2011) Armed conflict dataset v.4 2011. (http://www.pcr.uu.se/research/ucdp/datasets/) Accessed: 2013-11-13.

[4] United Nations (2014) List of least developed countries. (http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf) Accessed: 2014-04-21.

[5] Transparency International (2014) Corruption perceptions index 2013. (http://www.transparency.org/cpi2013/) Accessed: 2014-04-27.

[6] Hsiang SM, Meng KC, Cane MA (2011) Civil conflicts are associated with the global climate. *Nature* 476:438–441.